

IN THE SPECIFICATION

Delete the heading "Description" at page 1, after the title.

Add a new heading and paragraph at page 1, after the title and insert new section headings and subheadings as follows:

CROSS REFERENCE TO RELATED APPLICATION

This application is a national phase application based on PCT/IT2004/000160, filed March 31, 2004, the content of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

Field of the Invention

Page 1, before line 12, add the following new subheading:

Description of the Related Art

Page 5, before line 22, add the following new section heading:

SUMMARY OF THE INVENTION

Page 5, line 32, to page 6 line 7, delete the two (2) paragraphs starting with "In more detail, it is object of the present invention..." and ending with "...one or more of the subsequent claims 16 to 29." in their entirety and substitute new paragraphs therefor as follows.

In accordance with the present invention, there is provided a method of manufacturing tyres for vehicle wheels, comprising the steps of:

disposing a carcass structure comprising at least one carcass ply on a primary drum;

assembling a belt structure comprising at least one belt layer on an auxiliary drum;

picking up the belt structure from the auxiliary drum; and
transferring the belt structure to a coaxially centered position relative to the carcass structure;

shaping the carcass structure into a toroidal configuration to engage the belt structure with the carcass structure;

wherein during said step of assembling said belt structure, at least one underbelt insert is associated with said at least one belt layer at a radially internal position.

In one embodiment, the association of said at least one underbelt insert with the belt structure comprises the steps of:

applying said at least one underbelt insert onto an expandable support;
and

radially expanding the expandable support to mutually join the belt structure to said at least one underbelt insert.

Another embodiment of the present invention further comprises the step of applying a tread band around the belt structure disposed on the auxiliary drum. The tread band can be applied through spiralling of at least one elongated element of elastomer material.

Still another embodiment further comprises the step of applying a tread band at a radially external position to the belt structure that is assembled to a tyre under working

shaped into a toroidal conformation, through spiralling of at least one elongated element of elastomer material.

In accordance with the present invention, there is also provided an apparatus for manufacturing tyres for vehicle wheels comprising:

a primary drum set to support a carcass structure comprising at least one carcass ply;

an auxiliary drum having an abutment surface set to support a belt structure;

a transfer member movable between the primary drum and auxiliary drum; gripping devices associated with the transfer member to pick up the belt structure from the auxiliary drum; and

devices for application of at least one underbelt insert to said belt structure when the latter is at a position axially spaced apart from the carcass structure.

In one embodiment, the application devices of the apparatus comprise:

an expandable support;

devices for winding of the underbelt inserts on the expandable support;

and

actuator members to radially expand the expandable support between a first operating condition at which said support has a reduced diameter and a second operating condition at which it has an increased diameter.

In another embodiment, the apparatus further comprises pressing members operating on the expandable support to cause pressing of the belt structure against said

at least one underbelt insert. The apparatus of the present invention can also further comprise devices for application of a tread band to the belt structure at a radially external position and can also further comprising bending devices operating on the expandable support to bend end flaps of the tread band against axially external portions of said at least one underbelt insert associated with the belt structure.

Page 6, before line 9, add the following new section heading:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 7, before line 17, add the following new section heading:

DETAILED DESCRIPTION OF THE INVENTION